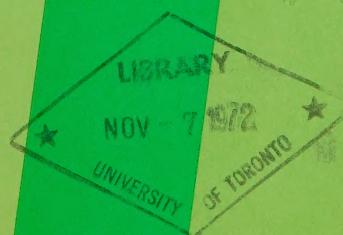
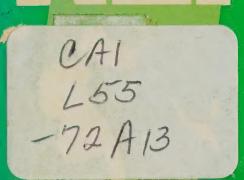


ACCIDENT INVESTIGATION AND REPORTING

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Can. Labour Dept. Accident prevention Compensation
Branch

[General Publication]

ACCIDENT INVESTIGATION AND REPORTING

[G-4 pt. 3]



A guide to the investigation and reporting of employment accidents with particular reference to enterprises subject to Part IV of the Canada Labour Code and the Canada Accident Investigation and Reporting Regulations.

Accident Prevention and Compensation Branch



FOREWORD

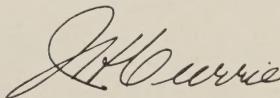
Is the injury the accident? It is apparent in many employment accident prevention programs that *injury* and *accident* are considered to be synonymous.

This brochure takes the position that the injury is seldom the accident and explains why it is important to differentiate between injury causes and accident causes and to develop measures that will not only prevent injuries but will also prevent accidents.

In support of this concept of accident prevention, the Canada Department of Labour has produced a film entitled *The Unplanned* and which is available through the National Film Board of Canada. This film is intended to serve as a teaching aid in demonstrating that injury causes are seldom the same as accident causes, accident causes are usually multiple and complex, accidents don't happen, they are caused and most accidents are caused by a combination of unsafe acts and unsafe conditions.

It is a requirement of the recently approved Canada Accident Investigation and Reporting Regulations that accidents be investigated by a qualified person in such a manner as to determine their causes and the measures necessary to prevent their recurrence.

Enquiries concerning this brochure may be directed to the Chief, Accident Prevention Division, Accident Prevention and Compensation Branch, Canada Department of Labour, Ottawa, K1A 0J3.



J. H. Currie,
Director,
Accident Prevention and
Compensation Branch

ACCIDENT INVESTIGATION AND REPORTING

Accident causes

No other accident prevention activity is capable of producing such quick and gratifying results as the proper investigation and reporting of accidents. Why is it then that in Canada only a small minority of employers are investigating and reporting accidents properly or showing any significant concern for accidents other than those which result in serious injuries?

Although accident prevention as a concept followed the adoption of injury compensation laws in the Canadian provinces when it became apparent to employers that employment injuries were costing a great deal of money and were an unnecessary drain on company profits, many employers still regard accident investigation in the very limited terms of establishing the injured employee's entitlement to compensation and determining who was to blame for the accident.

A first step to a proper investigation is recognition of the fact that accidents usually have several causes. For investigators who have been in the habit of regarding investigation as a fault-finding exercise, it has been only too easy to cite the cause of the accident as "employee carelessness." Indeed, employee failure is often a contributing factor, but it is now well established that in the majority of industrial accidents environmental conditions, as well as work practices, are contributing factors. And in both cases the problem can often be traced back to inadequate management control.

Another essential ingredient to a proper investigation is an appreciation of the difference between injury causes and accident causes, since the two are seldom the

same. The strong injury orientation of many investigators tends to direct them toward determining injury causes only. Remedial measures based on such causes are unlikely to prevent accidents.

For example, an employee is walking through a machine shop when he trips over a loose floor board. As he falls he extends his arm into the gears of an unguarded machine. Many investigators would cite the unguarded gears as the cause of the accident when, in fact, they were the cause of the injury. Guarding the gears will prevent a similar injury from recurring, but the loose floor board, which was the real cause of the accident, could easily contribute to another accident that might result in a fractured skull, a broken leg or some other injury. Pressing the investigation a bit further to establish the cause of the loose floor board might reveal it to be a long neglected condition and an obvious indication of an inadequate maintenance program.

A third factor often neglected in accident investigation is the preparation of a clear, concise report. It is the usual custom to interview witnesses, including the victim where possible, to try to establish what happened. This information is recorded more or less verbatim with no attempt being made to sort out extraneous or trivial material. As a result it is very difficult to get to the core of the matter.

In a proper investigation separate notes are made of the testimony of witnesses which are checked against the evidence that can be verified by the investigator by an on-site physical examination or by testing. From this



information the investigator prepares his report including only those facts and evidence that will assist in determining the causes of the accident and in developing remedial measures. Such a report can then be easily analyzed to ensure that all of the causes have been identified and that appropriate remedial measures are implemented.

An important point

A typical weakness of many accident investigation and reporting programs is the failure to properly establish responsibility and accountability for this important work. Too often it is regarded as a routine chore of filling in a Workmen's Compensation claim and is assigned to a junior clerk in the personnel section or if assigned to a supervisor it tends to be regarded as a nuisance rather than a basic function of his job.

It is recommended that all accidents resulting in fatalities, permanent disabilities, or having other serious consequences be investigated by a team headed by: the superintendent or senior supervisor of the work area in which the accident occurred; a senior supervisor from another work area; and such other specialists the plant manager may wish to appoint to assist in the investigation. The inclination to assign the entire responsibility to the safety co-ordinator should be avoided and every effort should be made not to deviate from the regular line organization pattern. The safety co-ordinator should function as an expert advisor or consultant.

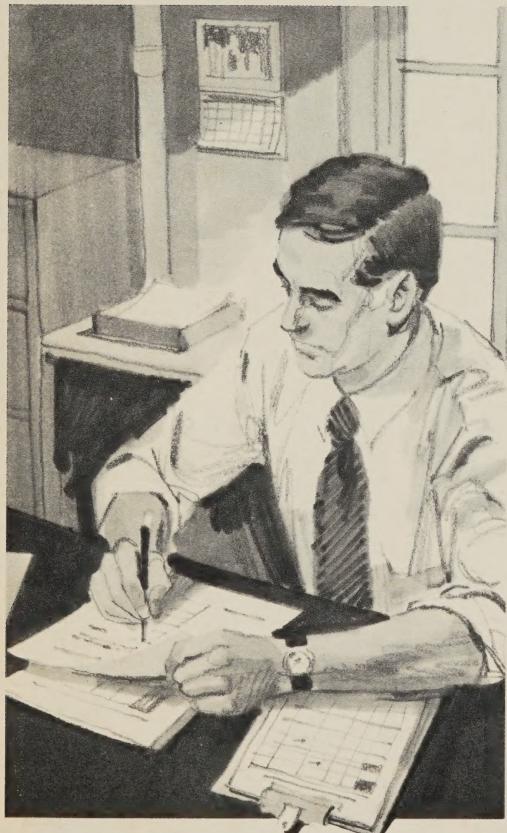
Where there is imminent danger of a recurrence, no time should be lost in implementing remedial measures and in submitting a preliminary report to the plant

manager. The final written report of a serious accident should be in the plant manager's hands as soon as possible but in most cases not later than five working days after the accident. The superintendent's report of a serious accident should then be reviewed within three working days of its receipt by an accident report review team which may be drawn from the plant safety committee or be specially appointed by the plant manager. The safety co-ordinator, as chairman, and at least one representative of both the employees and employer should serve on this review team.

Other systems of investigation may prove as effective as the one described, but it is important that a definite procedure involving supervision and the plant manager be adopted. It is considered desirable that a copy of the reports of all fatalities and other serious accidents be promptly referred by the plant manager to a vice president or other senior executive officer who is responsible for the company's overall accident prevention program.

Accidents resulting in less serious disabling injuries should be investigated by the foreman or other first line supervisor of the area in which the accident occurred. The involvement of an employee representative in these investigations wherever possible is desirable. The report should be reviewed by the foreman's superior and be discussed with the safety co-ordinator and safety committee at the next regular committee meeting.

Under the Canada Accident Investigation and Reporting Regulations, it is a requirement that the Regional Safety Officer be advised of all fatalities and other serious accidents within 24 hours and that two copies



of the reports of all such accidents and other disabling injury accidents be submitted to him within ten working days.

Once remedial measures have been agreed upon they should be implemented with the minimum delay that is consistent with good safety practice. Any measures outstanding after the forecasted completion date should be automatically referred to the plant manager who should be intolerant of excuses and insist upon action.

To obtain the maximum benefit from an accident investigation and reporting system, minor injury and property damage accidents should also be investigated. So called minor accidents may be investigated by a foreman or sub-foreman but they should be reviewed by the area supervisor. Since the results of an accident are usually entirely dependent on fortuitous circumstances, the information obtained from property damage and minor injury accidents may prove as beneficial from the prevention point of view as the information obtained from accidents having more serious results. And since the number of property damage and minor injury accidents is 10 to 30 times greater than the number of disabling injury accidents, the information derived from their investigation will greatly increase the data base upon which preventive measures are developed.

Minor injury record

As a minimum requirement, minor injury accidents should be recorded, preferably in a bound book, in such a manner that the record can be quickly reviewed





at least once a month for any trends or deviations from the normal situation. For example, a sudden increase in eye injuries in a particular area would indicate a need to review the eye protection program.

Some companies go a step further and investigate some of the incidents for which there were no unfavorable results but which are indicative of a deviation from a prescribed procedure or method beyond the normal control limits. Because there is no physical evidence that there has been an undesirable occurrence, it is more difficult to establish what happened and special interviewing and investigation techniques must be used.

The value of the accident prevention program will be grossly underestimated if we ignore the fact that the cost of property damage and material loss accidents is equal to, and often much greater than, the cost of compensable injuries. Without an accounting of the full cost of these accidents, it is impossible to develop an accurate cost-benefit ratio, and perhaps because of this, accident prevention programs in many organizations are relegated to a position of secondary importance.

Statistics can be a valuable by-product of a good accident investigation and reporting program, particularly if they include information on accident causes; but it should never be forgotten that statistics are no better than the reports from which they are derived and unless they are analyzed with care they can be misleading. Statistics are useful as a diagnostic aid in identifying trends and unusual conditions and they have a historical value, but they should not be regarded as a principal tool for action. No competent safety co-ordi-

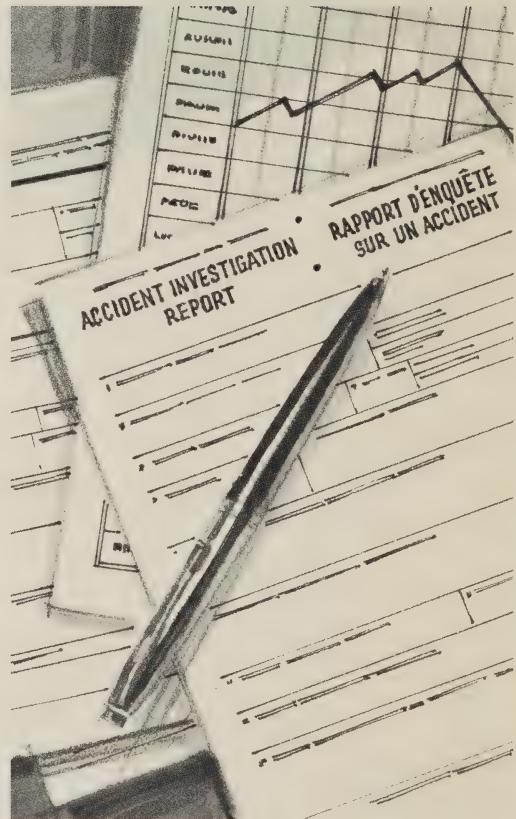
nator should have to wait for statistics to tell him whether his plant is in a reasonably safe condition, nor should he expect statistics to tell him what corrective action should be undertaken to eliminate a hazard; they help only in evaluating the hazard.

To be of real value, accident statistics must be separated by type of work unit, plant and major geographic location. It should be possible to determine the accident record of individual plant units such as the maintenance, packaging, or warehousing department or the main office, because the good record of a department with a large number of employees will mask the poor record of a department having a relatively small number of employees. Companies having several plant locations should be able to provide statistics for each location. These statistics and the reports of serious accidents should be a regular item on the monthly management meeting agenda.

The kinds of statistics produced will depend on many factors, particularly the availability of qualified persons to collect and analyze them. In small organizations it is not possible to justify more than a simple system in which only disabling injuries, fatalities, minor injuries, property damage accidents and the frequency rate are recorded. In large organizations a more sophisticated system can be employed.

Causes and remedies

A well-designed accident report form does not guarantee a good report, nor does a badly designed one prevent a good report from being made, because the





form is only a vehicle for transporting information. However, a form can influence the report by emphasizing the important features which, in the case of an accident report, are the causes of the accident and the remedial measures that will be adopted to prevent a recurrence. An accident report that does not contain this information is of little use as an aid to accident prevention.

The temptation to use a compensation claim form as an accident report should be avoided because it is usually injury oriented and directs attention to injury causes rather than to accident causes. As mentioned,

compensation claims are often completed by a junior employee in the personnel office, whereas an accident investigation report should be completed by the supervisor responsible for safety in the area where the accident occurred. This report should be used solely as an instrument for preventing accidents. The routing, processing, and other details of an accident investigation report is quite different from that of a compensation claim.

There is also a temptation, even where a special form is used for accident reporting, to add information irrelevant to the use of the form as an accident prevention

tool. The monetary savings to be realized from properly investigating and reporting accidents easily justifies the use of a form that is reserved exclusively for the purpose of preventing accidents.

From the regulatory point of view it is considered essential that a standard form be used by all enterprises subject to the Canada Accident Investigation and Reporting Regulations in order to facilitate the compilation and processing of statistics on a national basis.

The emphasis given in this review to the proper investigation and reporting of accidents should not be construed as meaning that other accident prevention activities are unimportant. In the typical work place having a disabling injury frequency rate near the current Canadian national industrial level of 27 per million man-hours, accident investigation and reporting is an essential activity because it would be foolhardy to ignore hazards which are proven accident causes. At the same time, a substantial effort should be directed to controlling potential hazards that result from: an inadequate safety policy; a failure to assign responsibility for safety and to ensure accountability; insufficient or improper education and training; and other similar management control deficiencies of a kind that are usually only brought to light by a safety audit.

Many experienced safety officers claim that good accident investigation and reporting should be number one on the list of accident prevention priorities. Certainly it is a good starting point for a new program or for revitalizing an old one. And it can be made as sophisticated as the enterprise's resources permit, including, eventually, the investigation of incidents in which there are no injuries or property damage. Conducted in the manner recommended, the investigation and reporting system places the basic responsibility for accident prevention where it belongs, on line management and supervisors, and it encourages the constructive participation of the employees.

This book is one of the Canada Occupational Safety Manual series.

In print are: Part 1 — Planning for Safety

Part 2 — Employment Safety Audit Guide

Part 3 — Accident Investigation and Reporting

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